

IN THE CLAIMS

1. (Currently Amended) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a targeted colony-forming immunogen in the rumen or intestinal tracts of said food animals, which method comprises:
 - A. Inoculating female chickens, in or about to reach their egg laying age, with a particular targeted colony-forming immunogen;
 - B. Allowing a period of time sufficient to permit the production in the eggs of the chickens of antibody to the target colony-forming immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;
 - C. Harvesting the eggs laid by the chickens;
 - D. Separating the entire contents of said harvested eggs from the shells; and
 - E. Drying said separated entire contents of said eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting targeted colony-forming immunogen to adhere to the rumen or intestinal tracts of the animals.
2. (Canceled)
3. (Previously Presented) The method according to Claim 1 wherein: said targeted colony-forming immunogen is from the class consisting of *P. anaerobius*, *C. sticklandii* and *C. aminophilum*.
4. (Canceled)
5. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to a living being to inhibit the adherence of a colony forming immunogen in

the digestive tract of the living being, said colony-forming immunogen is from the class consisting of *E. coli*, *Listeria*, *Salmonella* and *Campylobacter*, which method comprises:

- A. Inoculating female chickens in or about to reach their egg laying age with the colony-forming immunogen;
- B. Allowing a period of time sufficient to permit the production in the eggs of the chickens of antibody to the colony-forming immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;
- C. Harvesting the eggs laid by the chickens;
- D. Separating the entire contents of said harvested eggs from the egg shells; and
- E. Drying said separated entire contents of said eggs, said dried entire contents of said eggs when administered to the living being inhibiting the adherence of the colony-forming immunogen in the digestive tract by binding the IgY immunoglobulins to the colony-forming immunogen, said binding of the IgY immunoglobulins to the colony-forming immunogen being assisted by the IgM and IgA immunoglobulins.

6. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a targeted colony-forming immunogen in the rumen or intestinal tracts of said food animals produced by the method of:
- A. Inoculating female chickens, in or about to reach their egg laying age, with a particular target colony-forming immunogen;
 - B. Allowing a period of time sufficient to permit the production in the eggs of the chickens of antibody to the target colony-forming immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;
 - C. Harvesting the eggs laid by the chickens;
 - D. Separating the entire contents of said harvested eggs from the egg shells;

E. Providing a dry feed carrier material; and

F. Coating said dry feed carrier material with the separated entire contents of said harvested eggs, said dry food carrier material coated with the entire contents of said eggs when administered to the living being inhibiting the adherence of colony-forming immunogen in the digestive tract by binding the IgY immunoglobulins to the colony-forming immunogen, said binding of the IgY immunoglobulins to the colony-forming immunogen being assisted by the IgM and IgA immunoglobulins.

7. (Original) The method of Claim 6 wherein: providing a dry feed carrier material from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

8. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a colony-forming immunogen in the rumen or intestinal tracts of said food animals, said immunogen is P antigen from *P. anaerobius*, which method comprises:

A. Inoculating female birds, in or about to reach their egg laying age, with P antigen from *P. anaerobius*;

B. Allowing a period of time to permit the production in the birds and eggs laid by the birds of antibody to P antigen from *P. anaerobius*, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells; and

E. Drying said entire contents of said separated eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen of intestinal tracts of the food animals by binding the IgY immunoglobulins to the protein-

wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

9. (Previously Presented) The method of Claim 8 including: providing a dry carrier material, said drying of the separated entire contents of said eggs is achieved by coating the dry carrier material with the separated entire contents of said eggs.

10. (Previously Presented) The method of Claim 9 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

11. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a colony-forming immunogen in the rumen or intestinal tracts of said food animals, said immunogen is CS antigen from *C. sticklandii*, said method comprising:

A. Inoculating female birds, in or about to reach their egg laying age, with CS antigen from *C. sticklandii*;

B. Allowing a period of time to permit the production in the birds and eggs laid by the birds of antibody to CS antigen from *C. sticklandii*, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells; and

E. Drying said entire contents of said separated eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY immunoglobulins to the protein-

wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

12. (Previously Presented) The method of Claim 11 including: providing a dry carrier material, said drying of the separated entire contents of said eggs is achieved by coating the dry carrier material with the separated entire contents of said eggs.

13. (Previously Presented) The method of Claim 12 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

14. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a colony-forming immunogen in the rumen or intestinal tracts of said food animals, said immunogen is CA antigen from *C. aminophilum*, said method comprising:

A. Inoculating female birds, in or about to reach their egg laying age, with CA antigen from *C. aminophilum*;

B. Allowing a period of time to permit the production in the birds and eggs laid by the birds of antibody to CA antigen from *C. aminophilum*, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells; and

E. Drying said entire contents of said separated eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY immunoglobulins to the protein-

wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

15. (Previously Presented) The method of Claim 14 including: providing a dry carrier material, said drying of the separated entire contents of said eggs is achieved by coating the dry carrier material with the separated entire contents of said eggs.

16. (Previously Presented) The method of Claim 15 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

17. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a colony-forming immunogen in the rumen or intestinal tracts of said food animals, said immunogen is *E. coli* antigen from *E. coli*, said method comprising:

A. Inoculating female birds, in or about to reach their egg laying age, with the *E. coli* colony-forming immunogen;

B. Allowing a period of time to permit the production in the birds of antibody to the *E. coli* immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells; and

E. Drying said separated entire contents of said separated eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY immunoglobulins to

the protein-wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

18. (Previously Presented) The method of Claim 17 including: providing a dry carrier material, said drying of the separated entire contents of said eggs is achieved by coating the dry carrier material with the separated entire contents of said eggs.

19. (Previously Presented) The method of Claim 18 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

20. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a colony-forming immunogen in the rumen or intestinal tracts of said food animals, said immunogen is *Listeria* antigen from *Listeria*, said method comprising:

A. Inoculating female birds, in or about to reach their egg laying age, with the *Listeria* colony-forming immunogen;

B. Allowing a period of time to permit the production in the birds of antibody to the *Listeria* immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells; and

E. Drying the entire contents of said separated eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY immunoglobulins to the protein-

wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

21. (Previously Presented) The method of Claim 20 including: providing a dry carrier material, said drying of the separated entire contents of said eggs is achieved by coating the dry carrier material with the separated entire contents of said eggs.

22. (Previously Presented) The method of Claim 21 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

23. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a colony-forming immunogen in the rumen or intestinal tracts of said food animals, said immunogen is *Salmonella* antigen from *Salmonella*, said method comprising:

A. Inoculating female birds, in or about to reach their egg laying age, with the *Salmonella* colony-forming immunogen;

B. Allowing a period of time to permit the production in the birds of antibody to the *Salmonella* immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells; and

E. Drying the entire contents of said separated eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY immunoglobulins to the protein-

wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

24. (Previously Presented) The method of Claim 23 including: providing a dry carrier material, said drying of the separated entire contents of said eggs is achieved by coating the dry carrier material with the separated entire contents of said eggs.

25. (Previously Presented) The method of Claim 24 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

26. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a colony-forming immunogen in the rumen or intestinal tracts of said food animals, said immunogen is *Campylobacter* antigen from *Campylobacter*, said method comprising:

- A. Inoculating female birds, in or about to reach their egg laying age, with the *Campylobacter* colony-forming immunogen;
- B. Allowing a period of time to permit the production in the birds and eggs of antibody to the *Campylobacter* immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;
- C. Harvesting the eggs laid by the birds;
- D. Separating the entire contents of said harvested eggs from the egg shells; and
- E. Drying the entire contents of said separated eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY immunoglobulins to the protein-

wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

27. (Previously Presented) The method of Claim 26 including: providing a dry carrier material, said drying of the separated entire contents of said eggs is achieved by coating the dry carrier material with the separated entire contents of said eggs.

28. (Previously Presented) The method of Claim 27 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

29. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the adherence of a targeted colony-forming immunogen in the rumen or intestinal tracts of said food animals, which method comprises:

- A. Inoculating female birds, in or about to reach their egg laying age, with the particular targeted colony-forming immunogen;
- B. Allowing a period of time sufficient to permit the production in the bird of antibody to the targeted immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks in the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;
- C. Harvesting the eggs laid by the birds;
- D. Separating the entire contents of said eggs from the egg shells;
- E. Providing a dry carrier material; and
- F. Coating said dry carrier material with the entire contents of said eggs, said dried entire contents of said eggs when administered to food animals with animal feed promoting the growth of the food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen in the rumen or intestinal tracts of the food animals by binding the IgY

immunoglobulins to the protein-wasting immunogen, said binding of the IgY immunoglobulins to the protein-wasting immunogen being assisted by the IgM and IgA immunoglobulins to inhibit the ability of the protein-wasting immunogen to adhere to the rumen or intestinal tracts of the animals.

30. (Previously Presented) The method of Claim 29 wherein: the dry carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

31. (Previously Presented) The method of Claim 29 wherein: said target-forming immunogen is from the class consisting of *P. anaerobius*, *C. sticklandii* and *C. aminophilum*.

32. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the ability of the immunogen to adhere to the rumen or intestinal tracts of food animals to reduce the ability of the immunogen to multiply, said protein-wasting immunogen is P antigen from *P. anaerobius*, which method comprises:

A. Inoculating female birds, in or about to reach their egg laying age, with P antigen with *P. anaerobius*;

B. Allowing a period of time sufficient to permit the production of the bird and eggs laid by the birds of antibody to P antigen from *P. anaerobius*, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells;

E. Providing a dry feed carrier material; and

F. Coating said dry feed carrier material with the separated entire contents of said harvested eggs, said dry food carrier material coated with the entire contents of said eggs

when administered to the living being inhibiting the adherence of colony-forming immunogen in the digestive tract by binding the IgY immunoglobulins to the colony-forming immunogen, said binding of the IgY immunoglobulins to the colony-forming immunogen being assisted by the IgM and IgA immunoglobulins.

33. (Previously Presented) The microbial adherence inhibitor according to Claim 32 wherein: the dry feed carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

34. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the ability of the immunogen to adhere to the rumen or intestinal tracts of food animals to reduce the ability of the immunogen to multiply, said protein-wasting immunogen is CS antigen from *C. sticklandii* produced by the method of:

A. Inoculating female birds, in or about to reach their egg laying age, with CS antigen from *C. sticklandii*;

B. Allowing a period of time sufficient to permit the production in the bird and eggs laid by the birds of antibody to CS antigen from *C. sticklandii*, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells;

E. Providing a dry feed carrier material; and

F. Coating said dry feed carrier material with the separated entire contents of said harvested eggs, said dry food carrier material coated with the entire contents of said eggs when administered to the living being inhibiting the adherence of colony-forming immunogen in

the digestive tract by binding the IgY immunoglobulins to the colony-forming immunogen, said binding of the IgY immunoglobulins to the colony-forming immunogen being assisted by the IgM and IgA immunoglobulins.

35. (Previously Presented) The microbial adherence inhibitor according to Claim 34 wherein: the dry feed carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

36. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to food animals to inhibit the ability of the immunogen to adhere to the rumen or intestinal tracts of food animals to reduce the ability of the immunogen to multiply, said protein-wasting immunogen is CA antigen from *C. aminophilum* produced by the method of:

A. Inoculating female birds, in or about to reach their egg laying age, with CA antigen from *C. aminophilum*;

B. Allowing a period of time sufficient to permit the production in the bird and eggs laid by the birds of antibody to CA antigen from *C. aminophilum*, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;

C. Harvesting the eggs laid by the birds;

D. Separating the entire contents of said harvested eggs from the egg shells;

E. Providing a dry feed carrier material; and

F. Coating said dry feed carrier material with the separated entire contents of said harvested eggs, said dry food carrier material coated with the entire contents of said eggs when administered to the living being inhibiting the adherence of colony-forming immunogen in the digestive tract by binding the IgY immunoglobulins to the colony-forming immunogen, said

binding of the IgY immunoglobulins to the colony-forming immunogen being assisted by the IgM and IgA immunoglobulins.

37. (Previously Presented) The microbial adherence inhibitor according to Claim 36 wherein: the dry feed carrier material is from a group of materials including soybean hulls, rice hulls, corn, cottonseed hulls, distilled dried grains and beet pulp.

38. (Previously Presented) A method for the production of a microbial adherence inhibitor for administration to a living being to inhibit the adherence of a colony forming immunogen in the digestive tract of the living being, said colony-forming immunogen is from the class consisting of *E. coli*, *Listeria*, *Salmonella* and *Campylobacter*, which method comprises:

- A. Inoculating female chickens in or about to reach their egg laying age with the colony-forming immunogen;
- B. Allowing a period of time sufficient to permit the production in the eggs of the chickens of antibody to the colony-forming immunogen, said antibody in the eggs including IgY immunoglobulins in the yolks of the eggs and IgM and IgA immunoglobulins in the albumin of the eggs;
- C. Harvesting the eggs laid by the chickens;
- D. Separating the entire contents of said harvested eggs from the egg shells; and
- E. Providing a dry carrier material; and
- F. Coating said dry carrier material with the separated entire contents of said harvested eggs, said dry carrier material coated with the entire contents of said eggs when administered to the living being inhibiting the adherence of colony-forming immunogen in the digestive tract by binding the IgY immunoglobulins to the colony-forming immunogen, said binding of the IgY immunoglobulins to the colony-forming immunogen being assisted by the IgM and IgA immunoglobulins.